AERIAL OUTFIT ADN(3)
SUMMARY OF DATA

PURPOSE
For use with Types 992Q and 992R in association with GW systems.

BRIEF DESCRIPTION
The aerial comprises a linear selected strip enclosed in a cylindrical plastic radome and the pedestal on which it is mounted is stabilised in the pitch and roll planes. The aerial and pedestal components and protective finishes have been chosen to withstand the high temperature and corrosive environment produced by gas turbine exhausts.

Aerial rotation speeds of 15 or 30 revolutions are provided. The normal speed is 15 revolutions, At this speed, the ADN may be synchronised with Aerial Outfit AKE, The 30 revolution is used exceptionally for navigational purposes. A ship's head marker is provided at both speeds. Facilities are also provided for hand training of the aerial and for automatic slewing of the aerial on ship's head.

Control of each of the training and stabilising motions is by an amplidyne servo loop, comprising a servo amplifier, amplidyne generator and the appropriate aerial drive motor. The servo amplifier control equipment and the amplidyne generator are located in the radar office and machinery space, respectively.

Closed and time-synchro transmissions provide accurate bearing information to the weapons system. Compass correction is provided externally by the ship's Azimuth Retransmission Unit (RTU).

Wavesides, rotating joints and aerial are pressurised at 2.1 kg/cm² (30 lb/in²).

CHARACTERISTICS
- Beam width: 1.2° horizontal
- Beam Elevation: 15° vertical
- Gain: Approx 29 dB
- Operating Frequency: 2944-3052 MHz
- Polarisation: Vertical

MAJOR UNITS
- 5985-99-627-2490 Antenna Guard Assembly
- 5985-99-627-2486 Pedestal, Aerial
- 5980-99-824-8954 Waveguide Assembly
- 5840-99-416-4116 Cabinet Aerial Control
- 5840-99-416-9033 Drawer Aerial Indicator
- 5885-99-627-2490 Control Antenna
- 5840-99-806-6473 Drawer Squint Correction
- 5840-99-416-0993 Drawer Servo Amplifier
- 6125-99-462-4661 AC/DC/AC/DC Motor Generator Amplidyne Module Control

PHYSICAL DATA
- Aerial length: 640 cm (21 ft)
- Turning Circum: 635 cm (21.5 ft)
- Height of Pedestal with Aerial: 198 cm (6.6 ft)
- Weight of Pedestal: 475 kg (1050 lb)
- Weight of Aerial: 123 kg (404 lb)
- Control Cabinet:
  - Height: 62 cm
  - Width: 65 cm
  - Depth: 66 cm
  (24.5 in.)
  (25.5 in.)
  (26 in.)
- Weight of Control Cabinet (excluding drawers): 227 kg (500 lb) approximately

RESTRICTED 8.5
POWER REQUIREMENTS
460 V 60 Hz 3 phase 3 kVA, for amplitideyne generators
220 V dc 1 A for servomotor field
115 V 400 Hz single phase 6 A for motor amplifiers and synchros
60 V 60 Hz single phase 1 A for amplitideyne generator demagnetising circuits
24 V dc 2 A for control gear

HANDBOOK
BR 339(2, 3, 4) General, User and System Information
BR 339(5) Units - Technical Description

ESTABLISHMENT LIST
E1439

INSTALLATION SPECIFICATION
p1340